

33727

S/122/62/000/002/007/007
D262/D301

17000

AUTHORS: Rusin, P.I., Yaroshevskiy, L.A., Candidates of Technical Sciences and Fedorin, N.N., Engineer

TITLE: A device for automatic dimension-control of parts during machining on surface grinding machines

PERIODICAL: Vestnik mashinostroyeniya, no. 2, 1962, 70-71

TEXT: The device, designed by the authors, is described in general terms. The principle is that the tip of the transmitting element of the instrument does not slide along the surface being ground, but drops at preset times touching the surface and returns to its original position. Contact of the tip with the surface takes place when the table reverses, i.e. when its speed is nil. When required dimensions are obtained, an impulse is relayed to a signal (sound or light) apparatus. The installation diagram is shown in Fig. 1 (P_1 , P_2 , P_3 are micro-switches); another figure shows the details of the transmitting element. It is stated that this device is simple in construction, more resistant to wear, more accurate.

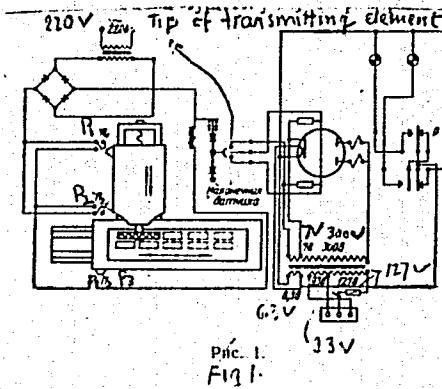
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A device for automatic ---

and reliable than other devices of the same type. Accuracy is 20μ . It is also stated that the principle of this device can be utilized for dimension control on milling, planning and other metal cutting machines. There are 2 figures.



Card 2/2

SOV/137-58-7-15302

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 195 (USSR)

AUTHOR: Rusin, P.I.

TITLE: Factors Determining the Speed of Diffusion of Carbon During High-frequency Heating of Malleable Iron (Faktory, opredelyayushchiye skorost' diffuzii ugleroda pri vysokochastotnom nagreve kovkogo chuguna)

PERIODICAL: Tr. Rostovsk.-n/D in-ta s.-kh. mashinostr., 1957, Nr 8,
part 1, pp 289-293

ABSTRACT: Calculated data on the determination of the rate of diffusion in relation to the presence of combined C in pig iron (I) and, in connection therewith, the choice of the optimal temperature for high-frequency heating of malleable iron. The coefficient of diffusion (D) and the temperature have the following relationship: $D = A \cdot e^{-Q/RT}$, where A is the parameter of the equation, cm^2/sec ; Q is the heat of diffusion, cal/g-atom; R is the gas constant (1.987 cal/g-atom); and T is the absolute temperature, $^{\circ}\text{K}$. Investigations in connection with the selection of an optimal temperature depending on the quantity of pearlite (P) in the number of C anneal pockets showed that for high-frequency

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Factors Determining the Speed of Diffusion of Carbon (cont.)

tempering of I which contains in its structure up to 25-30% P, the optimal temperature would be 1050-1080°C. With an increase in the amount of P (C_{comb}) and the number of C pockets in the I the tempering temperature may be lowered to 1000°. The hardenability of ferrite-pearlite I depends on the presence in the structure of (C_{comb}) and the number of C pockets. With an increase of P content and of the number of pockets, the hardness of I after tempering increases. The temperature of tempering of I with a large quantity of P and an increase of the number of C pockets of annealing, on heating with high-frequency current, can be lowered by 50-100° compared to ferrite I.

A.B.

1. Iron--Heating
2. Carbon--Diffusion
3. Diffusion--Velocity
4. High frequency heating--Applications

Card 2/2

RUSIN, P.I., kand. tekhn. nauk.

Thermal parameters of high frequency heating during hardening
of pearlitic gray cast iron. Metalloved. i obr. met. no.3:53-56
Mr '58. (MIRA 11:3)

1. Rostovskiy-na-Donu institut sel'skokhozyaystvennogo mashinostro-
yeniya. (Cast iron--Hardening) (Induction heating)

137-58-4-8274

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 278 (USSR)

AUTHOR: Rusin, P. I.

TITLE: The Properties of Malleable Cast Iron Under High-frequency Hardening (Svoystva kovkogo chuguna pri vysokochastotnoy zakalke)

PERIODICAL: V sb.: Progresivn. metody proiz-va v mashinostr. Rostov-na-Donu, 1957, pp 167-180

ABSTRACT: An examination is made of the possibility of increasing labor productivity and improving the quality of the product (strength and resistance of parts to wear) by high-frequency heat treatment of malleable cast iron (MI), without prior normalization. The following were studied: 1) the solubility of free C in the metallic base of the iron; 2) the required heating temperature; 3) the factors making for MI hardenability; 4) the factors affecting the depth of hardening, and the possibilities of maintaining the core in its initial state, including the conditions of hardening required to preserve the cast skin (in the case of parts not subjected to machining); 5) the mechanical properties of MI treated by high-frequency currents. It was found that: 1. HF

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137-58-4-8274

The Properties of Malleable Cast Iron Under High-frequency Hardening

heating of ferritic MI makes for a high degree of surface hardness in the product. 2. The number of C nodules per unit area is a factor in the hardenability of ferritic MI on HF heating. 3. The rate at which the MI is heated, the number of anneal nodules of C, and rate of cooling (the cooling medium), are factors affecting the magnitude of the hardened and transition layers. The hardness and depth of the hardened layer increase with increasing rate of cooling. 4. The presence of bound C in the peripheral layer of MI with pearlitic edging facilitates intensive solution of C in the metallic base on high-speed induction heating. 5. When the ratio of the area of the hardened layer F_h to the area of the core F_c is between 0.15 and 0.55, σ_{bp} will depend upon the properties of the core. As F_h increases, σ_{bp} declines from 33 to 25.5 kg/mm². With further increase in F_h , σ_{bp} starts to increase, namely to 44-48 kg/mm² when F_h/F_c is 3.5-4.0, and this testifies to the dominant importance of the thickness of the hardened layer. Heat treatment by HF heating in MI hardening is employed in making the parts for self-propelled reapers, such as the engaging lever, the lift lever catch, and the toothed rack of the cutter, thus increasing service life. The substitution of HF-hardened iron teeth for steel teeth in threshers is also noted.

S.Sh.

Card 2/2

1. Cast iron--Properties--Hardening effects

Rusin, P. I.

129-3-11/14

AUTHOR: Rusin, P. I., Candidate of Technical Sciences.

TITLE: Thermal parameters of high frequency heating during hardening of pearlitic grey iron. (Termicheskiye parametry vysokochastotnogo nagreva pri zakalke perlitnogo serogo chuguna).

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, No.3,
pp. 53-56 (USSR)

ABSTRACT: If grey iron has a pearlitic structure, the transformations proceeding in it during high frequency heating are very similar to the transformations which are observed in steel. However, the low thermal conductivity of cast iron and the presence in cast iron of graphite inclusions influences appreciably the temperature distribution along the cross section and also the processes of saturation of the austenite with carbon during ^{the} high frequency heating. It is, therefore, advisable to investigate the thermal parameters of high frequency heating during hardening of the iron since these characterize most fully the temperature field in the heated volume of the component. In this paper some of the results are described which characterize the influence of the temperature and the heating speed on Card 1/3 the hardenability and the hardening depths of grey iron.

129-3-11/14

Thermal parameters of high frequency heating during hardening of pearlitic grey iron.

Cylindrical specimens of 25 mm dia. and 40 mm length of grey pearlitic iron containing 3.45% C, 0.65% Mn, 1.79% Si, 0.116% S and 0.140% P were investigated. Heating to 800-1150°C was effected by means of a high frequency generator of 60 kW, 500 kc/sec with a heating speed of 100 to 400°C/sec. The graph, Fig.1, gives the distribution of the hardness along the cross section of a hardened specimen heated by means of h.f. current to 800-850°C with heating speeds of 100, 200, 300 and 400°C/sec; the graph, Fig.2, gives the hardness distribution for similar specimens heated to 1000-1050°C with the same respective heating speeds; the graph, Fig.3, gives the hardness distribution for specimens heated with equal respective heating speeds to temperatures above 1100°C; Fig.4 shows the structural diagram of hardening of pearlitic grey iron using high frequency heating for average heating speeds of 100-400°C/sec. It can be seen from the latter diagram that the most favourable thermal parameters during high frequency heating with the current supplied from valve oscillators are: heating speed of about 300°C/sec with a hardening temperature of 980-1050°C. This ensures

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129-3-11/14

Thermal parameters of high frequency heating during hardening of pearlitic grey iron.

obtaining a 1.5 to 2 mm layer of a high hardness with a transient zone of about 2.5 to 3 mm thick.

There are 4 figures and 6 references, all of which are Russian.

ASSOCIATION: Rostov/Don Institute of Agricultural Engineering.

(Rostovskiy na Donu Institut Sel'skokhozyaystvennogo Mashinostroyeniya).

AVAILABLE: Library of Congress.

Card 3/3

DATSKYEVICH, M.F.; POTEKHIN, S.S.; ZIMIN, F.F.; POPOV, I.Ye.; RUSIN, P.N.;
ANOKHIN, S.D.; NESTEROV, V.F.; YROLOV, V.A.; GRYAZNOV, V.A., red.;
USTIYANTS, V.A.; KAPRALOVA, A.A., tekhn.red.

[Modernizing punched card calculating machines] Opyt modernizatsii
schetno-perforatsionnykh mashin. Moskva, Gos. stat. izd-vo, 1957.
(MIRA 11:4)
75 p.

1. Russia (1923- U.S.S.R.) Upravleniye "Soyuzmashuchet."
(Punched card systems)
(Calculating machines)

RUSIN, S. P.
TITLE: Seminar on refractory metals, compounds, and alloys (Kiev, April 1963).
SOURCE: Atomnaya energiya, v. 15, no. 3, 1963, 266-267

ACCESSION NR: AP3008085

composition on thermal stresses.

T. A. Sultanyan. Electron-microscope investigation of the nature of fracture.

N. S. Pozdnyak, K. G. Akhmetzanov. Heat and electric conductivity of high-purity tantalum and niobium.

O. A. Krayev, A. A. Stel'makh. Thermal diffusivity of tungsten and molybdenum at high temperatures.

S. P. Rusin, O. S. Gurvich. Heat conductivity of loose refractory powders in vacuum and inert gas.

L. F. Mal'tseva, E. N. Marmer. Heat and electric conductivity of refractory compounds.

V. B. Fedorov, V. I. Akimov. Heat capacity of metals at high temperatures.

Card 9/11

SOURCE CODE: UR/0137/66/000/004/B003/B003

FILE: V. P.; Gurvich, O. S.
Determining the emittance of graphite at high temperatures

43

SOURCE: Ref. zh. Metallurgiya, Abs. 4B17
REF SOURCE: Elektrotermiya. Nauchno-tekhn. sb., vyp. 46, 1965, 31-33

TOPIC TAGS: graphite, emissivity constant, temperature

ABSTRACT: A tubular graphite specimen 300 mm long and 14/8 mm in diameter was heated by an alternating electric current. An opening 0.5 mm in diameter was made in the central section of the tube. The true and brightness temperatures of the tubular surface were determined from the radiation escaping through this opening after taking appropriate corrections into consideration. The experiments were done in a vacuum of 10^{-3} - 10^{-4} mm Hg. The specimen to be tested was preheated and held at a temperature of 1600-2000°K for 10-15 hours to stabilize the surface state. It is shown that the absolute value of the integral hemispherical emittance ϵ_t is somewhat reduced when the spectral radiation interval is expanded into the longer wave region. The method of least squares gives temperature relationships of ϵ_t and ϵ_λ (monochromatic normal emit-

UDC: 669:536.3

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RUSIN, S. P., and GURVICH, O. S.

"Heat conductivity of materials in vacuum and inert gases"

Seminar on production methods, physical properties, and electron structure of refractory metals, compounds, and alloys, organized by the Institute of Powder Metallurgy and Special Alloys AS Ukr SSR, Kiev, 25-29 April 1963. (Teplofizika vysokikh temperatur, No. 1, 1963, p. 156)

RUSIN, S.P.; MARMER, E.N.

Determining the heat conductivity coefficient of graphite at
high temperatures in vacuum. Porosh.met. 1 no.6:75-78 N-D
'61. (MIM 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektroter-
micheskogo oborudovaniya.
(Graphite—Thermal properties)

ACC NR: AP7004398 (A) SOURCE CODE: UR/0226/67/000/001/0047/0051

AUTHOR: Rusin, S.P.; Ovchinnikov, V.P.

ORG: All-Union Scientific Research Institute of Electrothermal Equipment (Vsesoyuznyy nauchno-issledovatel'skiy institut elektrotermicheskogo oborudovaniya)

TITLE: Chamber for determining the emissivity of materials at high temperatures

SOURCE: Poroshkovaya metallurgiya, no. 1, 1967, 47-51

TOPIC TAGS: emissivity, graphite ~~emissivity, monochromatic emissivity,~~
~~hemispheric emissivity constant, carbide, boride~~

ABSTRACT: A chamber for determining the total hemispheric and monochromatic emissivities of materials such as graphites, carbides and borides has been built and tested. One test was carried out on PPG graphite (specific weight—1.68) specimens at 1300—2600°C in a vacuum of 10^{-3} — 10^{-4} mm Hg. It was found that the monochromatic emissivity of

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UDC: none

ACC NR: AP7004398

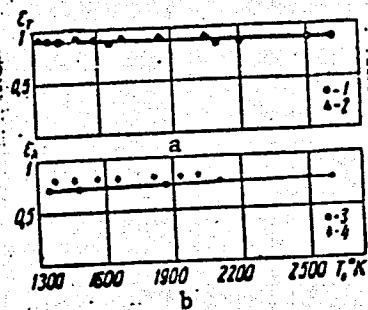


Fig. 1. Monochromatic (a) and hemispheric (b) emissivity of PPG graphite (Specific weight—1.68).

1 and 3 - Results obtained from this test; 2 ($\lambda = 0.65 \cdot 10^{-6}$ m) and 4 - results from other works.

PPG graphite decreases linearly, while the total hemispheric emissivity increases linearly with increasing temperature (see Fig. 1). Results obtained in this test were very close to those obtained by other methods. Orig. art. has: 4 figures. [TD]

SUB CODE: 20, 11/ SUBM DATE: 15Mar66/ ORIG REF: 005/ OTH REF: 003/
ATD PRESS: 5116

Card 2/2

RUSIN, S.T.

New type of air pressure sampler from the blast pipe. Metallurg
9 no.7:12-13 J1 '64. (MIRA 17:8)

1. Makeyevskiy metallurgicheskij zavod.

RUSIN, V.

Semiautomatic pipe-bending machine. Mashinostroitel'
no. 6:12 Je '60. (MIRA 13:8)
(Pipe bending)

RUSIN, V.A.

Automation of a milling and trimming machine. Mashinostroitel'
no.1:11 Ja '62. (MIRA 15:1)
(Milling machines) (Automatic control)

RUSIN, V.A.

Semiautomatic machine for bending sheets. Mashinostroitel' no.11:8
(MIRA 13:10)
N '60.
(Bending machines)

ROMANOVSKIY, V.I.; RUSIN, V.A.

Machining worms on a gear-milling machine. Mashinostroitel'
(MIRA 14:6)
no.6:15 Je '61.
(Gear cutting)

AKSENOV, Aleksey Gavrilovich; LUR'YE, M.Ye., inzh., red.; RUSIN, V.N.,
retsenzent; FILIPPENKO, A.A., retsenzent; VITASHKINA, S.I.,
red.izd-va; BOBROVA, V.A., tekhn.red.

[Marine refrigerator plants] Sudovye kholodil'nye ustavoksi.
Pod red. M.E.Lur'e. Moskva, Izd-vo "Rechnoi transport," 1959.
183 p. (MIRA 12:12)

(Refrigeration on ships)

IKONNIKOV, Sergey Alekseyevich, dots., kand. tekhn. nauk; KRAKOVSKIY, Ivan Ivanovich, prof., doktor tekhn. nauk; MAL'TSEV, Vasiliy Nikolayevich, dots., kand. tekhn. nauk; CHACHKHIANI, Igor' Konstantinovich, dots., kand. tekhn. nauk. Prinimal uchastiye RUSIN, V.N.; LAKHANIN, V.V., prof., doktor tekhn. nauk, retsenzent; FROLOV, V.M., dots., kand. tekhn. nauk, retsenzent; KHOZE, A.N., kand. tekhn. nauk, retsenzent; KOTIN, A.F., dots., kand. tekhn. nauk, retsenzent; MYASNIKOV, N.V., red.; SHLENNIKOVA, Z.V., red. izd-va; BODROVA, V.A., tekhn. red.

[Power plants on ships] Sudovye silovye ustavovki. By S.A.Ikonnikov i dr. Moskva, Izd-vo "Rechnoi transport," 1961. 519 p. (MIRA 14:11)

1. Sotrudniki konstruktorskikh byuro Ministerstva rechnogo flota
(for Lakanin, Frolov, Khoze, Kotin).
(Marine engines)

BONDARENKO, D.C., red.; BUGAYENKO, P.I. [Buhaienko, P.I.], red.; VASH, O.V.,
red.; KLIMPOTYUK, M.V., red.; PASTUSHENKO, M.S., red.; POVKH, V.O.,
vidp. red.; POLISHCHUK, V.P., red.; RUSIN, V.P., red.; YESEN'KO, V.V.,
red.; LUCHKIV, M., tekhn. red.

[Soviet Transcarpathia; a handbook] Radians'ke Zakarpattia; dovidnyk.
Uzhhorod, Zakarpats'ke obl. wyd-vo, 1957. 239 p. (MIRA 11:7)
(Transcarpathia)

RUSIN, V.Ya. (Yaroslavl')

State of nonspecific increased resistance in animals
during muscular training and training with a single administration
of dibasol. Pat. fiziol. i eksp. terap. 6 no.1:49-53 Ja-F '62.
(MIRA 15:3)

1. Iz kafedry fiziologii (zav. - dotsent L.I. Murskiy)
Yaroslavskogo pedagogicheskogo instituta.
(DIBASOL) (EXERCISE) (IMMUNITY)

LAZAREV, N.V.; RUSIN, V.Ya.

New materials on the characteristics of the state of nonspecifically increased resistance. Nerv. sist. no.4:149-152 '63
(MIRA 18:1)

1. Institut onkologii AMN SSSR, Leningrad i Yaroslavskiy pedagogicheskiy institut.

RUSIN, V. Ya.

Effect of prolonged dibazol introduction on the growth and
resistance of white mice and their offspring. Fiziol. zhur.
49 no.5:632-638 My '63. (MIRA 17:11)

From the Department of Physiology, Pedagogic Institute,
Yaroslavl.

RUSIN, V.Ya.

Increase in the resistance to various types of narcotics as a result
of dibasol injection, muscle training, exposure to cold and hypoxic
exercises. Nauch.dokl.vys.shkoly; biol.nauki no.3:45-49 '65.
(MIRA 18:8)

1. Rekomendovana kafedroy fiziologii cheloveka i zhivotnykh
Yaroslavskogo pedagogicheskogo instituta.

RUSIN, V.Ya.

Effect of dibazol on the growth of tumors and resistance of
animals with melanomas and Ehrlich's ascites tumors. Vop. onk.
(MIRA 18:6)
11 no.3:53-56 '65.

1. Iz kafedry fiziologii chelovika i zhivotnykh (ispolnyayushchiy
obyazannosti zaveduyushchego - dotsent V.Ya. Rusin) Yaroslavskogo
pedagogicheskogo instituta (dir. - dotsent P.N. Pilatov) i labo-
ratoriya eksperimental'noy onkologii (zav. - zasluzhennyy deyatel'
nauki prof. N.V. Lazarev) Instituta onkologii AMN SSSR (dir. -
deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrov).

RUSIN, V.Ya. (Yaroslavl', ul. Svobody, d.1, kv.5)

Effect of dibazol and adaptation to cold and muscular work
on animals with the Ehrlich tumor. Vop. onk. 9 no.6:60-66
'63. (MIRA 17:8)

1. Iz kafedry fiziologii (zav. - prof. L.I. Murskiy) Yarosla-
vskogo pedagogicheskogo instituta (dir. - dotsent P.P.
Pilatov) i otdela eksperimental'noy onkologii (zav. - zaslu-
zhennyy deyatel' nauki prof. N.V. Lazarev) Instituta onkologii
AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I.
Serebrov).

L 27637-66 EWT(1) SCTB DD

ACC NR: AP6018426.

(A, N) SOURCE CODE: UR/0325/65/000/003/0045/0049

AUTHOR: Rusin, V. Ya.

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B

ORG: Department of Human and Animal Physiology, Yaroslavl' Pedagogical Institute
(Kafedra fiziologii cheloveka i zhivotnykh Yaroslavskogo pedagogicheskogo instituta)

TITLE: Increase in resistance to various types of narcotics as a result of injection
of dibazol, muscle conditioning, cold hardening, and hypoxia conditioning

SOURCE: Nauchnyye doklady vysshey shkoly. Biologicheskiye nauki, no. 3, 1965, 45-49

TOPIC TAGS: hypoxia, pharmacology, gland

ABSTRACT: The article describes the results of a comparative study of resistance to narcotics of Types I (ether) and II (hexenal) in animals in which a state of non-specific increased resistance had been induced through various types of conditioning, including injections of dibazol. The effect of removing the sex glands of intact and conditioned animals in the process of developing resistance was also studied. Resistance to narcotics of various types was found to vary irregularly as a result of various adaptogenic effects. The injection of dibazol, muscle conditioning, cold hardening, and repeated hypoxia considerably increased the resistance of white mice to diethyl ether. Resistance to hexenal increased in all groups except that given dibazol. Injection of dibazol during a break in

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ACC NR: AP6018426

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the conditioning increased the capacity to maintain resistance, particularly in animals undergoing muscle conditioning. Castration did not alter the state of non-specific heightened resistance to ether and it had very little effect on resistance to hexenal. The injection of testosterone-propionate had no essential effect on resistance of castrated animals to ether, and it increased resistance to hexenal. Castration of intact animals did not affect resistance to ether, and it reduced resistance to hexenal. Testosterone-propionate increased the resistance of both castrated and control animals. Orig. art. has: 3 tables. [JPRS]

SUB CODE: 06 / SUBM DATE: 20Jun64 / ORIG REF: 007

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RUSIN, V.Ya. (Yaroslavl')

Adaptation to the cold and heat in muscular training and in
dibazol administration. Pat. fiziol. i eksp. terap. 6 no.6:
63-65 N-D'62 (MIRA 17:3)

1. Iz kafedry fiziologii (zav. - dotsent L.I.Murskiy)
Yaroslavskogo pedagogicheskogo instituta.

RUSIN, V.Ya.

Changes in the quantity of erythrocytes, leucocytes and leucocytic formula in the white rat blood after the adaptation to muscular work and injection of dibasol. Dokl. na nauch. konf. 1 no.4:82-88 '62. (MIRA 16:8)

(Erythrocytes) (Leucocytes) (Dibasol) (Muscles--Motility)

ABRAMOVA, Zh.I., kand. med. nauk; GADASKINA, I.D., prof.; GOLUBEV, A.A., kand. med. nauk; DANISHEVSKIY, S.L., prof.; ZIL'BER, Yu.D., kand. med. nauk; LAZAREV, L.N., kand. khim. nauk; LEVINA, E.N., doktor med. nauk; LOYT, A.O.; LYUBLINA, Ye.I., doktor biol. nauk; LYKHINA, Ye.T., kand. biol. nauk; MINKINA, N.A., kand. med. nauk; RUSIN, V.Ya., kand. med. nauk; SALYAMON, L.S., kand. med. nauk; SPERANSKIY, S.V.; TRAKHTENBERG, I.M., dots.; FILOV, V.A., kand. biol. nauk; TSIRK, K.G., kand. med. nauk; CHEKUNOVA. M.P., kand. med. nauk; GRIVA, Z.I., red.; LAZAREV, N.V., zasl.deyat.nauki,prof., red.; LEVIN, S.S., tekhn. red.; BASINA, M.Z., tekhn. red.

[Toxic industrial substances; handbook for chemists, engineers and physicians] Vrednye veshchestva v promyshlennosti; spravochnik dlja khimikov, inzhenerov i vrachei. Izd.4., perer.i dop. Leningrad, Goskhimizdat. Pt.2.[Inorganic and metallo-organic compounds] Neorganicheskie i elementorganicheskie so-edineniia. 1963. 619 p. (MIRA 17:2)

RUSIN, V.Ya.

Increase in the resistance of animals to overloads at great accelerations under the action of some stimulants, vitamins and hormone preparations. Nauch. dokl. vys. shkoly; biol. nauki no.4:69-73 '63. (MIRA 16:11)

1. Rekomendovana kafedroy cheloveka i zhivotnykh Yaroslavskogo pedagogicheskogo instituta.

*

ACCESSION NR: AR4023351

S/0299/64/000/004/A013/A013

SOURCE: RZh. Biologiya, Abs. 4A94

AUTHOR: Rusin, V. Ya.

TITLE: Increasing the acceleration-related overload resistance by muscular exercise, exposure to low temperatures and injection of "Dibazol"

CITED SOURCE: Sb. Materialy* Konferentsii po probl. adaptatsii, trenirovki i drugim sposobam povy*sheniya ustoychivosti organizma. Vinnitsa, 1962, 40-41

TOPIC TAGS: mouse centrifugation, acceleration stress, acceleration conditioning, acceleration stress aftereffect, excess gravity, Dibazol

TRANSLATION: Mice of both sexes, 200 in all, were subjected to the effects of acceleration in a centrifuge (20 sec., 800 rpm, head to center position). Time elapsing from sudden stop of the centrifuge to reestablishment of the capacity for straight-line locomotion served as a criterion of resistance. This recovery period decreased sharply, by 30 to 40%, in all test groups by the end of the first week. Resistance to acceleration decreased in the control mice, the group

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ACCESSION NR: AR4023351

receiving Dibazol (1 mg/kg) either subcutaneously or intraperitoneally, as well as mice exercised by daily swimming. The best resistance was shown at that point by a group receiving Dibazol and exercising at the same time. The recovery period was shorter for all test groups on the 19th and 25th days than for the control group. It became shorter by 12% within 15 days after tests started on mice exposed to the "adaptive" effects of low temperature (2 - 6°C for 2 - 5 hours daily). Hence, Dibazol proved most effective, followed by this drug in conjunction with exposure to low temperature, while the latter alone proved least effective. The effects of Dibazol and low temperature training coincided for mice into which an Ehrlich tumor had been transplanted subcutaneously. It is concluded that muscular exercise, low temperature training and repeated injection of Dibazol in small dosage can serve as methods for increasing the resistance of an organism to extensive acceleration. A. Zhuchkova

DATE ACQ: 16Mar64

SUB CODE: AM

ENCL: 00

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RUSIN, V.Ya.

Role of adaptation to low temperature and dibasol in increasing the
resistance of mice to adverse factors. Fiziol. zhur. 48 no.2:195-200
(MIRA 15:2)
F '62.

1. From the Department of Physiology, Paedagogic Institute, Yaroslavl.
(ADAPTATION (BIOLOGY)) (COLD PHYSIOLOGICAL EFFECT)
(DIBASOL)

FILOV, V.A.; RUSIN, V.Ya. (Leningrad)

Determination of styrol and its chlorine derivatives in the blood. Gig. truda i prof. zab. 4 no.12:47-50 D '60. (MIRA 15:3)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gigiyeny truda i professional'nykh zabolеваний.
(STIRINE)

(CHLORIDES IN THE BODY)
(BLOOD--ANALYSIS AND CHEMISTRY)

L 12609-63

EWT(1)/BDS/ES(a)/ES(b)/ES(c)/ES(k) AFFTC/AMD

Pb-4 A/DD

ACCESSION NR: AP3001503

S/0239/63/049/005/0632/0638

AUTHOR: Rusin, V. Ya.61
60

TITLE: Effect of prolonged dibazol treatment on the growth and resistance of white mice and their progeny

SOURCE: Fiziologicheskiy zhurnal SSR, v. 49, no. 5, 1963, 632-638

TOPIC TAGS: Dibazol, ethyl ether, dibazol treatment, body resistance

ABSTRACT: This work is a continuation of studies on resistance of laboratory animals treated with dibazol, particularly pregnant animals and progeny, to such external factors as low temperature, total starvation of short duration, partial starvation, and hypoxia.² Since substances increasing the nonspecific resistance of the body contribute to weight gain in many cases, this study investigates the dynamics of body weight. Experiments were conducted on animals with different initial weights. Dibazol was administered with drinking water 1 to 2 mg/kg per day for 3 to 26 weeks in a cycle of 1 week and then withdrawn for 1 week. Results show that the weight of young mice treated with dibazol for 1 to 2 months increases more rapidly (Table 1) but the weight of adult mice is not affected. Prolonged dibazol treatment (6 to 7 mos) increases resistance of adult mice and

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ACCESSION NR: AP3001503

pregnant mice to low temperature, total starvation, and to the narcotic action of ethyl ether. Progeny of animals treated for prolonged periods with dibazol were more resistant to low temperature, total starvation, and the narcotic action of ethyl ether, but with time this resistance disappeared. On the basis of this data and earlier studies it appears desirable to treat farm animals to increase weight and resistance. Orig. art. has: 1 figure, 2 tables.

ASSOCIATION: Kafedra fiziologii cheloveka i zhivotnykh pedagogicheskogo instituta, Yaroslav (Dept. of Physiology of Man and Animals, Pedagogic Institute)

SUBMITTED: 19Nov62 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: AM NO REF SOV: 005 OTHER: 000

Card 2/2

MURSKIY, L.I.; RUSIN, V.Ya., red.; SHCHETNEV, P.K., tekhn.red.

[Physiology of hypothermia] Fiziologija gipotermii.
Yaroslavl', 1958. 236 p. (Yaroslavl. Gosudarstvennyi
pedagogicheskii institut. Uchenye zapiski, no.44). (MIRA 15:11)
(HYPOTHERMIA)

ABRAMOVA, Zh.I.; BRUSILOVSKAYA, A.I.; GADASKINA, I.D.; GOLUBEV, A.A.;
GRIGOR'YEV, Z.E.; DANISHEVSKIY, S.L.; KOVNATSKIY, M.A.; KOYRANSKIY, B.B.;
LAZAREV, N.V.; LEVINA, E.N.; LYUBLINA, Ye.I.; LYKHINA, Ye.T.; OSIPOV,
B.S.; RYLOVA, M.L.; RUSIN, V.Ya.; SLONIM, A.D.; FRIDLJAND, I.G.

Il'ia Stepanovich Aleksandrov. Farm.i toks. 24 no.1:127 Ja-F '61.
(MIRA 14:5)

(ALEKSANDROV, IL'IA STEPANOVICH, 1902-1960)

RUSIN, Yakov Il'ich, prof., doktor med.nauk; STAL'SKIY, Yu.I., red.

[Uae of new instruments in obstetrics; gluteal forceps, spring autodilator] Primenenie novykh instrumentov v akusherskoj praktike; shchipty kozhno-lagodichnye, pruzhinnyyi avtodilatator. Arkhangel'sk, Arkhangel'skoe knizhnoe izd-vo, 1960. 69 p. (MIRA 13:11)

(OBSTETRICS--APPARATUS AND INSTRUMENTS)

RUSIN, Yakov Il'ich

[Scalp forceps] Kozhno-golovnye shchiptsy. Krasnoiarsk, 1958.
(MIRA 13:8)
55 p. (FORCEPS, OBSTETRIC)

RUSIN, Yakov Il'ich

[Contrast radiography in gynecology] Kontrastnaya rentgeno-grafija v ginekologii. Moskva, Medgiz, 1959. 156 p.
(MIRA 13:7)

(GENERATIVE ORGANS, FEMALE--RADIOGRAPHY)

RUSIN, Ya.I. (Arkhangel'sk, prosp. Vinogradova, d.16, kv.3)

Pregnancy and labor following heart surgery for mitral disease.
Grud. khir. 2 no.5:50-53 S.-D '60. (MIRA 16:5)

1. Zaveduyushchiy kafedroy akusherstva i ginekologii Arkhangel'skogo
meditsinskogo instituta.
(MITRAL VALVE—SURGERY) (PREGNANCY, COMPLICATIONS OF)
(LABOR, COMPLICATED)

RUSIN, V. Ya., Cand of Med Sci -- (diss) "Data on the toxicology of certain chlorine derivative sterols." Leningrad, 1957, 15 pp (Leningrad Sanitary-Hygiene Medical Institute), 200 copies (KL, 33-57, 89)

RUSIN, V.Ya. (Leningrad)

Toxicity of a flotation agent with an undecylamine base. Gig.truda
i prof.zab. 3 no.5:53 S-0 '59. (MIRA 13:2)

1. Institut gigiyeny truda i profzabolevaniy.
(UNDECYLAMINE--PHYSIOLOGICAL EFFECT)

RUSIN, V.Ya. (Leningrad)

Influence of some chlorine derivatives of styrene on the function
of the liver and the thyroid gland. Gig. truda i prof. zab. 4
no. 7:46-48 Jl '60. (MIRA 13:8)

1. Institut gigiyeny truda i profzabolevaniy.
(STYRENE—PHYSIOLOGICAL EFFECT) (LIVER) (THYROID GLAND)

RUSIN, V.Ya.

Comparison of some physiological changes in the animal organism
in adaptation to muscular exertion and in medically increased
resistance. Fiziol. Zhur. 46 no. 7;870-876 Jl '60.
(MIRA 13:8)

1. From the Chair of Physiology, Pedagogical Institute, Jaroslav.
(PHYSICAL EDUCATION AND TRAINING)

Line
RUSIN, Yu. S.: Master Tech Sci (diss) -- "Determination of the magnetic conductivity of magnet systems of complex configuration". Leningrad, 1958. 10 pp
(Min Higher Educ USSR, Leningrad Inst of Precision Mechanics and Optics), 150 copies (KL, No 2, 1959, 122)

RUSIN, Yu.S., inzh.

Electric fields of deflecting systems. Izv.vys.ucheb.zav.; prib.
no.3:43-48 '58. (MIRA 12:2)

1. Leningradskiy institut technoy mekhaniki i optiki.
(Electric fields) (Electronic instruments)

RUSIN, Yu.S.

Calculating certain plane-meridional fields. Nauch.dokl.vys.shkoly;
energ. no.4:135-140 '58. (MIRA 12:5)

1. Leningradskiy institut tochnoy mekhaniki i optiki.
(Field theory)

66181

SOV/146-58-5-6/24

24(3) 24.2300

AUTHOR: Rusin, Yu.C., Aspirant

TITLE: Calculation of Magnetic Conductivity

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Priborostroyeniye, 1958, Nr 5, pp 32-36 (USSR)

ABSTRACT: The article treats ways of calculating the three-dimensional magnetic system. The accuracy in calculating a magnetic system depends on the magnetic conductivity. The over-all conductivity of a system is the sum of the partial magnetic conductivities. The author in addition tries to find out which sort of magnets froms the most intensive magnetic field. The magnetic conductivity is calculated in the same way as the electric and the thermal conductivity, which makes it possible to use the same formulae (for instance formula 1). Figure 2 shows, how the electric conductivity is measured in the electrolytic bath. Table 2 shows results of the measurements, which were taken of the electric resistance between the electrodes in the electrolytic bath. During these measure-

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SOV/146-58-5-6/24

Calculation of Magnetic Conductivity

ments, the following factors were taken into account:
1) The changing distance between the electrodes;
2) The varying length of the metal plates; 3) The resulting largeness of the magnetic conductivity. Table 2 shows the magnetic conductivity with changing distance of the metal plates. The conductivity between the metal plates is calculated with formula 8. Table 3 gives the value of the magnetic conductivity calculated with this formula. The results of the calculation, which was carried out with the method found by Roter, were compared with the given experiments. The formula found by Roter to calculate the magnetic conductivity is not as exact as the formula 8, which is discussed in this article. The article contains the results of the tests. There are 2 diagrams, 3 tables and 5 Soviet references.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki
(Leningrad Institute of Fine Mechanics and Optics)

✓

Card 2/2

66211

SOV/146-59-1-10/21

24(3) 24.2200

AUTHOR:

Rusin, Yu.S., Post-Graduate Student

TITLE:

Determining the Permeance Between Faces of Complicated Configuration

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy, Priborostroyeniye, 1959,
Nr 1, pp 68-72 (USSR)

ABSTRACT:

The author presents a calculation method for determining the permeance between two faces of a system (plates of some configuration). Such calculations are occasionally required for electrical devices. The existing approximated methods (for example, the method of Roters (Ref.1)) produce an inadequate accuracy for practical application. The author applies his method for calculating two plates which are located symmetrically in regard to the x-axis. He bases his method on dividing the field into two sections, as shown in fig.1. The author explains the conditions which must be met by the plates, for example, they must have identical width. The formulas of V. Smayt (Ref.3) were used for determining the permeance. The author *X*

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SOV/146-59-1-10/21

Determining the Permeance Between Faces of Complicated Configuration

bases the approximation of the function $\psi(k)$ on data of I.M. Ryzhik and N.S. Gradshteyn (Ref.5). Finally, he presents a numerical calculation example. There are 2 diagrams, 2 tables and 5 Soviet references.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki (Leningrad Institute of Precision Mechanics and Optics) ✓

SUBMITTED: November 18, 1958

Card 2/2

HUSIN, Yu.S.

Measuring self-capacitance of inductance coils having iron
cores. Izm.tekh. no.10:57 0 '65.

(MIRA 18:12)

RUSIN, Yu.S. (Leningrad)

Approximate calculation of capacitance between an electrode
with random form and its encompassing sphere. Elektrichesvo
no.3:89 Mr '65. (MIRA 18:6)

RUDIN, Yu.S.

Determination of the resistance of windings taking into consideration
the proximity and surface effects. Electrosviaz' 19 no.2:80 F '65.
(MIRA 18:3)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446120010-2

RUSIN, Yu.S.

Determination of the self-capacitance of windings. Radiotekhnika
(MIRA 17:6)
19 no.2:64-66 F '64.

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446120010-2"

RUSIN, Yuriy Semenovich, kand. tekhn. nauk, ispolnyayushchiy obyazannosti starshego nauchnogo sotrudnika

Calculation of permeance. Izv. vys. ucheb. zav., elektronika
mekhanicheskaya, 6 no. 12:1304-1308 '63. (MIRA 17:1)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446120010-2

RUSIN, Yu.S., kand. tekhn. nauk (Leningrad)

Calculation of the field of non-equipotential electrodes.
Elektrichestvo no.6:54-55 Je '63. (MIRA 16:7)

(Electrodes)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446120010-2"

RUSIN, Yu.S., kand.tekhn.nauk (Leningrad)

Concerning the calculation of electrostatic fields.
Elektrichestvo no.9:93 S '62. (MIRA 15:9)
(Electric fields) (Electrostatics)

RUSIN, Yu. S.

Designing induction pickups. Priborostroenie no.10:5 0 '62.
(MIRA 15:10)

(Transducers)

RUSIN, Yuriy Semenovich, kand.tekhn.nauk, starshiy nauchnyy sotrudnik

Concerning the determination of magnetic permeance using the
Roters' method. Izv. vys. uch. zav.; elektromekh. 5 no.8:
933-934 '62. (MIRA 15:8)
(Magnetic measurements) (Magnetic circuits)

RUSIN, Yu.S., kand.tekhn.nauk (Leningrad)

Determination of the permeability of toothed magnetic systems.
Elektrichestvo no.7:59-63 Jl '61. (MIRA 14:9)
(Magnetic circuits)

RUSIN, Yu.S., inzh. (Leningrad)

Approximation method of calculating electric capacitance.
Elektrichestvo no. 11:48-50 N '60. (MIRA 13:12)
(Electric capacitance)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446120010-2

RUSIN, Z.

Interdepartmental control. Fin.SSSR 20 no.9:58-59 S '59.
(MIRA 12:12)

(Leningrad Economic Region--Auditing)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446120010-2"

RUSIN, Z.

Classification needs to be simplified. Fin. SSSR 23 no.9:52-55
(MIRA 15:9)
S '62.
(Budget)

LARIONOVA, M.; MOLCHANOV, M.; RABINOVICH, G.; RUSIN, Z.; SAVICHEV, P.;
SEREBRYANYY, M.

"Financial and credit dictionary". Vol. 1. Reviewed by M.
Larionova and others. Fin. SSSR 23 no.9:88-92 S '62.
(MIRA 15:9)

(Finance—Dictionaries)

GUROV, A.N., dotsent; LOGINOV, A.P., dotsent [deceased]; RABINOVICH,
G.L., dotsent; RUSIN, Z.Kh., dotsent; EYDINOVA, L.L., dotsent;
TORF, I.F., prepodavatel'; ALEKSANDROV, A.M., prof., red.;
FILIPPOVA, E., red.; LEHEDEV, A., tekhn. red.

[State budget of the U.S.S.R.] Gosudarstvennyi biudzhet SSSR.
Moskva, Gosfinizdat, 1961. 560 p. (MIRA 15:2)

1. Kafedra Gosudarstvennogo byudzheta SSSR Leningradskogo
finansovo-ekonomicheskogo instituta (for all except Filippova,
Lebedev).
(Budget)

ACC NR: AP7003179

(A, N)

SOURCE CODE: UR/0317/66/000/012/0054/0055

AUTHOR: Rusina, A. (Engineer)

ORG: None

TITLE: From our practise [Metal products storage]

SOURCE: Tekhnika i vooruzheniye, no. 12, 1966, 54-55

TOPIC TAGS: equipment storage technique, iron corrosion, corrosion inhibitor, corrosion protection, military R and D

ABSTRACT: The manner in which metal products are packaged, the mixtures used as preservatives, and the amounts used to obtain the proper mixtures, are described. Paper saturated with an inorganic phosphate solution can protect metal products (except copper, zinc, cadmium, magnesium, or their alloys) for up to 3-4 years, while ferrous metals can be preserved for 5 or more years in any climate when a volatile urotropine inhibitor is used. Paper used to protect steel surfaces is impregnated with NDA (dicyclohexylamine nitrite), while ferrous metals are protected by paper impregnated with MEAK (monoethanolamine carbonate). Orig. art. has: none.

SUB CODE: 13,15/SUBM DATE: None

Card 1/1

L 5097-66 EWP(j)/T RM

ACC NR: AP6000244

SOURCE CODE: CZ/0008/65/059/002/0198/0200

AUTHOR: Rusina, Albert

ORG: Institute of Polarography im. J. Heyrovsky, CSAV, Prague (Polarograficky ustav
J. Heyrovskeho, CSAV)TITLE: Importance of N,N'-dimethylformamide in inorganic chemistry

SOURCE: Chemicke listy, v. 59, no. 2, 1965, 198-200

TOPIC TAGS: inorganic chemistry, organic amide

ABSTRACT: Applications of N,N'-dimethylformamide (DMF) as a solvent, ligand, and reaction component in inorganic chemistry are discussed. DMF is miscible with water, benzene, chloroform, acetone, CS₂, ethanol, and ether. It boils at 153°C and does not form azeotropes. It has low vapor pressure at atmospheric temp., but its vapor is poisonous. It is used as a solvent for hydrides.

It is suitable for spectroscopic applications, because of its high "transparency." It may be used in polarography between +0.4 V and - 2.8 V. Complex forming properties of DMF are described. Under certain conditions DMF can be used for carbonylation of some metal compounds. [JPRS]

SUB CODE: OC, GC / SUBM DATE: none / ORIG REF: 004 / OTH REF: 018 / SOV REF: 002

Card 1/1 m2

09010680

RUSINA, Albert

Formation of hydride and carbonyl complexes of transition metals in the reaction with alcohols. Chem listy 58 no.10:1147-1152 O '64.

I. J. Heyrovsky Institute of Polarography, Czechoslovak Academy of Science, Prague.

RUSINA, Albert

Polarographic cells for work with nonaqueous solutions. Chem listy
57 no.10:1070-1072 0 '63.

1. Polarograficky ustav, Ceskoslovenska akademie ved, Praha.

RUSINA, Albert

Washing apparatus for gases with discontinuous regeneration
of wash liquids. Chem listy 58 no.9:1101-1102 S '64.

1. J. Heyrovsky Institute of Polarography, Czechoslovak Academy
of Sciences, Prague.

L 15475-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD/APGC Ps-4/Pc-4/
Pr-4 BW/WW/RM/JFW/MN

ACCESSION NR: AP3005455

8/0204/63/003/004/0579/0583

AUTHORS: Karpukhin, O.N.; Rusina, I. F.; Nikiforov, G. A.; Shlyapintokh, V. M. 81
77

TITLE: Steric hindrance of phenolphthaleins and the possibility of
their utilization in the study of oxidation-inhibiting processes 11

SOURCE: Neftekhimiya, v. 3, no. 4, 1963, 579-583

TOPIC TAGS: tetraisopropylphenolphthalein, phenolphthalein, naphthol,
colorimetry, diphenylpicrylhydrazyl

ABSTRACT: In order to obtain a highly effective anti-oxidation inhibitor known as tetraisopropylphenolphthalein was synthesized. Phenolphthalein was taken as the base since it possesses colorimetric properties in an alkaline media. Two isopropyl groups were introduced into the phenolphthalein radical to produce an inhibitor which is close to the activity of alpha-naphthol. The concentration of this inhibitor can be easily measured colorimetrically through its

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ACCESSION NR: AP3005455

intensive and stable coloration in an alkaline media. The sensitivity of tetraisopropylphenolphthalein analysis is several times greater than the sensitivity of diphenylpicrylhydrazyl.⁴ The kinetics of tetraisopropylphenolphthalein consumption was measured in the oxidation reaction of ethylbenzol initiated with azobisisobutyronitrile. It is suggested that tetraisopropylphenolphthalein should be used in the study of kinetics and mechanism of the oxidation-inhibiting processes for the measurement of the rate of formation of free radicals⁴ in the solutions. "The authors express their gratitude to L. G. Bulavin for his advice to use inhibitors for radical reactions which have phthalein bases." The orig. art. has: 3 figures, 1 formula.

ASSOCIATION: Institut khimicheskoy fiziki, AN SSSR (Institute of chemical physics, AN SSSR)

SUBMITTED: 15Jun62 DATE ACQ: 09Jan63 ENCL: 00

SUB CODE: CH, PH NO. REF Sov: 002 OTHER: 003

Card 2/2

KARPUKHIN, O.N.; SHLYAPINTOKH, V.Ya.; RUSINA, I.F.; ZOLOTOVA, N.V.

Chemiluminescent method for determining the inhibitors of free
radical reactions. Zhur.anal.khim. 18 no.8:1021-1025 Ag '63.
(MIRA 16:12)

1. Institute of Chemical Physics, Academy of Sciences, U.S.S.R.,
Moscow.

KARPUKHIN, O.N.; SHLYAPINTCKH, V.Ya.; ZOLOTOVA, N.V.; KOZLOVA, Z.G.; RUSINA, I.F.

Mechanism of the weakening of chemiluminescence by inhibitors of free
radical reactions. Zhur.fiz.khim. 37 no.7:1636-1638 J1 '63.
(MIRA 17:2)

1. Institut khimicheskoy fiziki AN SSSR.

VASIL'YEV, R.F.; RUSINA, I.F.

Chemiluminescence of molecular oxygen during oxidation of organic substances. Izv.AN SSSR.Ser.khim. no.9:1728 S '64.

(MIRA 17:10)

1. Institut khimicheskoy fiziki AN SSSR.

ALLABUTAYEV, K.A.; VASIL'YEV, R.F.; VICHUTINSKIY, A.A.; RUSINA, I.F.

Mechanism of chemiluminescence of oxidation reactions in
solutions. Trudy MOIP. Otd. biol. 21:8-18 '65. (MIRA 18:6)

KARPUKHIN, O.N.; RUSINA, I.F.; NIKIFOROV, G.A.; SHLYAPINTOKH, V.Ya.

Sterically hindered phenolphthaleins and the possibility of
using them for the study of inhibited oxidation processes.
Neftekhimiia 3 no.4:579-583 Jl-Ag '63. (MIRA 16: 11)

1. Institut khimicheskoy fiziki AN SSSR.

ACCESSION NR: AP4006495

S/0020/63/153/005/1101/1104

AUTHORS: Vasil'yev, R. F.; Rusina, I. F.

TITLE: Oxygen quenching of excited states in chemiluminescent solutions

SOURCE: AN SSSR. Doklady*, v. 153, no. 5, 1963, 1101-1104

TOPIC TAGS: chemiluminescence, hydrocarbon, benzene, ethyl-, liquid phase oxidation, hydrocarbon oxidation, chemiluminescence quenching, oxygen quencher, peroxydicarbonic acid, dicyclohexyl ester, anthracene, 9,10-dibromo-, chemiluminescence activator, intermolecular energy transfer, excited state, lifetime, quantum yield, luminescence yield, triplet singlet transition, luminophor, propionitrile, 2,2'-azobis [2-methyl-]

ABSTRACT: A study was made on the inherent tendency of oxygen to quench luminescence of a chemical system. An oxidation reaction of ethyl benzene in benzene (inert solvent) initiated by the decomposition of peroxydicarbonic acid dicyclohexyl ester at 40°C was used for the study. The measurement of the relationship between the

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ACCESSION NR: AP4006495

chemiluminescence intensity and the O_2 concentration was facilitated by the fact that the oxidation of oxygen saturated mixture in a hermetically sealed vessel reduces the O_2 gradually. Shown in Fig. 1a (see enclosure) are two kinetic intensity curves of chemiluminescence corresponding to two different reaction rates for different concentrations of peroxydicarbonic and acid-dicyclohexyl ester. As the O_2 concentration is reduced, its quenching effect is weakened and its intensity increased. Curves I and II are replotted within the coordinates of the Stern-Volmer equation: $\frac{I_0}{I} = 1 + KtP \left[O_2 \right]$ where I_0 and I are the intensities (photocurrents) of the quenched and unquenched luminescence, tP is the duration of the excited state of P , and k is the constant of the process rate: $P + O_2 \xrightarrow{k} KP + O_2$ were replotted as shown in

Fig. 1b of enclosures. The chemiluminescence in the oxidation of ethyl benzene represents a radiating T-S-transition in the acetophenone molecule, which is formed by a recombination of acidified ethyl-benzene radicals along with 2-phenyl-ethanol and O_2 . Quenching

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ACCESSION NR: AP4006495

is one of the reasons for the low intensity of the luminescence in liquid phase oxidation, and the main reason for the short duration of the excited state. Orig. art. has: 4 Figures and 5 Formulas.

ASSOCIATION: Institut khimicheskoy fiziki Academii Nauk SSSR
(Institute of chemical physics, Academy of Sciences, AN SSSR)

SUBMITTED: 07Jun63

DATE ACQ: 09Jan64

ENCL: 01

SUB CODE: CH

NR REF SOV: 012

OTHER: 005

Card

3143

VASIL'YEV, R.F.; RUSINA, I.F.

Oxygen quenching of excited states in chemiluminescent
solutions. Dokl. AN SSSR 153 no.5:1101-1104 D '63.

(MIRA 17:1)

1. Institut khimicheskoy fiziki AN SSSR. Predstavлено
академиком V.N. Kondrat'yevym.

L 17723-63

EWP(j)/EPF(c)/EWT(m)/BDS PC-4/Pr-4 RM/WW/JFW

S/0076/63/0037/007/1636/1638

ACCESSION NR: AP3004076

AUTHORS: Karpukhin, O. N.; Shlyapintokh, V. Ya.; Zolotova, N. V.; Kozlova, Z. G.;
Rusina, I. F.TITLE: Mechanism of weakening of the chemiluminescence with inhibitors of free radical reactions. 71
70

SOURCE: Zhurnal fizicheskoy khimii, v. 37, no. 7, 1963, 1636-1638

TOPIC TAGS: chemiluminescence, free radical, inhibitor, ethylbenzene, cumole, dimethyloctane, azobisisotutyronitrile

ABSTRACT: Chemiluminescence in radical reactions takes place during the recombination of free radicals. It can be expected that the addition of strong inhibitors will weaken the chemiluminescence in the visible region by means of their interaction with the free radicals and thus decreasing the concentration of radicals. The effect of inhibitors upon the chemiluminescence was studied in the reactions of initial oxidation of hydrocarbons such as ethylbenzene, cumole, 2,7-dimethyloctane and others. Azobisisotutyronitrile was used as the inhibitor. It was found that in reactions of initial oxidation of hydrocarbons the intensity of chemiluminescence was lowered by the introduction of various inhibitors. The main reason for the decrease in luminescence is the decrease of concentration of

Card 1/2

L 17723-63

ACCESSION NR: AP3004076

active free radicals in the presence of inhibitors. Orig art. has: 2 figures and 4 formulas.

ASSOCIATION: Akademiya nauk SSSR, Institut khimicheskoy fiziki (Academy of Sciences SSSR, Institute of Chemical Physics). /

SUBMITTED: 29Oct62

DATE ACQ: 15Aug63

ENCL: 00

SUB CODE: CH

NO REF SOV: 005

OTHER: 001

Card 2/2

I 15137-65 EWT(m)/EPF(c)/EWP(j) Pg-l/Pr-l ESD(t)/ESD(gs)/AS(mp)-2 RM

ACCESSION NR: AP4045805

S/0062/64/000/009/1728/1728

AUTHOR: Vasil'yev, R. F.; Rusina, I. F.

TITLE: Chemiluminescence of molecular oxygen in the process of oxidation of organic compounds

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 9, 1964, 1728

TOPIC TAGS: chemiluminescence, hydrocarbon oxidation, ketone oxidation, oxygen chemiluminescence, free radical recombination

ABSTRACT: A predicted red chemiluminescence was observed on oxidation of methylethylketone, cyclohexane, and ethylbenzene in benzene solution. The dependence of the fraction of red luminescence on the composition indicates the different natures of the blue-green and red fractions. The red chemiluminescence is believed to be emitted from excited O₂ molecules.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

Card 1/2

L 15137-65

ACCESSION NR: AP4045805

SUBMITTED: 17May64

ENCL: 00

SUB CODE: GC

NO REF SOV: 002

OTHER: 002

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VASIL'YEV, R.F.; RUSINA, I.F.

Mechanism of chemiluminescence during the oxidation of
organic matter in solution. Dokl. AN SSSR 156 no.6:1402-
1405 Je '64. (MIRA 17:8)

1. Institut khimicheskoy fiziki AN SSSR. Predstavлено
академиком Н.Н. Семеновым.

KALIVODA, Iva, Ing., CSc.; KUSINA, Jiri, Ing.

Feasibility of structural steels for long-distance gas lines at
temperatures reduced to minus 20° C. Zvaranie 13 no. 16263-291
of 1964.

1. Research and Testing Institute, Nova hut Kibernetika
National Enterprise, Ostrava.

AUTHOR: Rusina, Jan, Ing.

CZECH/34-59-7-10/22

TITLE: Influence of Carbide Forming Additions of Mo and V on
the Separation and Diffusion of Carbon in the Ferrite
(Vliv karbidotvorných prísad Mo a V na vylučování a
difusi uhlíku ve ferritu)

PERIODICAL: Hutnické Listy, 1959, Nr 7, pp 608-610 (Czechoslovakia)

ABSTRACT: The results are described which were obtained in investigating, by means of the method of internal damping, the separation of the carbides Mo_2C and V_4C_3 in steels alloyed with Mo and V respectively. The compositions of these steels were as follows: 0.07% C, 0.10% Mn, 0.49% Mo and 0.09% C, 0.15% Mn 0.70% V, 0.26% Cr. Difficulties were encountered due to the lack of knowledge of the influence of the alloying carbide forming substance on the maxima of the internal damping. The results confirm the views of the author to the effect that carbide forming additions increase the solubility of carbon in the iron. The results also yielded information on changes in the solid solution prior to the occurrence of the germinations of the particular carbide. The method of measuring internal

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CZECH/34-59-7-10/22

Influence of Carbide Forming Additions of Mo and V on the Separation and Diffusion of Carbon in the Ferrite

damping has proved successful generally but for the time being it has not proved adequate for quantitative determination of the changes occurring during the process of separation. By further study of the influence of alloying elements on the magnitude of the internal damping it will be possible to overcome even this difficulty and to use the method for studying all the phenomena relating to changes in the concentration of the interstitial substance in the solid solution. The work described in the paper formed a diploma work on the science of metals at the Mining Faculty, VSB in 1958; the measurements were carried out in the Research Institute VZKG. There are 1 figure, 1 table and 7 references, 2 of which are Czech, 2 English, 2 German and 1 Soviet.



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TSEFT, A.L.; SMOLINA, L.P.; TROITSKAYA, L.N.; RUSINA, L.D.; ZAPUNNAYA, K.V.

On the extraction of selenium and tellurium from their alloys with
sulfur. Trudy Vost.-Sib.fil. AN SSSR no.25:60-63 '60.
(MIRA 13:9)

(Selenium)

(Tellurium)